COMMENTS ON THE ADMINISTRATIVE RECORD

Environmental Research & Technology, Inc.
September 10, 1984

These comments are based on 1) the Index to the Administrative Record sent to John Craun by Robert Leininger's cover letter of August 22 and 2) the selected materials from the Record sent to John Craun by Robert Leininger on August 22 and September 5.

Comments on items listed in the index follow:

Index Item	Comment
1 & 2	We have kept abreast of the CH2M Hill work since it began two years ago. We have a complete copy of their report, with a few brief updates provided by Leininger's second package. Overall, CH2M Hill did good work technically. However, we do have specific technical concerns or disagreements with certain items. Our major concerns include: 1) an analytical method that gives results biased high (see Appendix G of ERT's April 1983 report, pg. G-84ff); 2) apparent methylene chloride contamination problems and a lack of oxidant balances during the bench testing work (see Craun letter to Hansel of January 5, 1983); and 3) their lack of serious consideration of powdered activated carbon as a treatment alternative.
3	Leininger sent us copies of two CH2M Hill/EPA phone memos. These provide cursory documentation of the cost presented in the ROD. We basically understand their content, but don't necessarily agree with the approaches they describe. In particular, the approach in estimating carbon costs (4/10/84 memo) is overly conservative (see our comments on GAC design issues).

Index Item	Comment
4 & 5	The relevance of Hickok's November 1981 report to the ROD or Administrative Order is not clear to us. Hickok's gradient control modeling work was seriously flawed (see Appendix E of ERT's April 1983 report, pg. E-84ff) and Hickok's discussion of GAC treatment is based largely on an earlier Hickok study for SLP involving testing at SLP15 which is not even mentioned in the Record.
6	It is unclear how the Barr II report is relevant to GAC treatment.
7 & 8	We note that our report is part of the Record, but that there is no rebuttal in the ROD to our proposed criteria for noncarcinogen PAH (4 to 400 ug/1) or to our position that PAC could be more cost-effective than GAC, if indeed treatment is required at all. Also, Section G3 of Appendix G of our report summarizes the data of Sorrell, et al. (1980) and Basu and Saxena (1978) indicating that numerous U.S. water supplies exceed a criterion of 2.8 ng/1 for carcinogens.
9	The relevance of Hult & Schoenberg's report to the GAC treatment is unclear.
10	It is unclear why University of Iowa lab data on W23 samples are part of the record.
11	Our disagreements with the MPCA's January 1984 MPCA RAP should be clear from comparing Reilly's proposed RAP of June 1984.
12	The EPA Water Quality Criteria document apparently is included to support the 2.8 ng/1 criterion for carcinogenic PAH.

Index Item	Comment
13	Leininger's August 22 package included two MPCA/EPA phone memos. One documents Steve Riner telling Paul Bitter about a purported 10^{-6} risk concentration for quinoline (1,100 ngl), but gives no indication of how Riner obtained this number. The second explains how the ROD's capital cost estimate for GAC is derived and is self-explanatory when viewed in the context of CH2M Hill's report.
14	It is unclear why Carl Lesher's affidavit is included in the Record.
15	This item refers to the paper by Sorrell, et al. from which we have quoted on numerous occasions. Sorrell's data show that 2 of 18 water supply samples exceed a 2.8 ng/l criterion for carcinogenic PAH, both of which are tap samples from systems with asphalt (Columbus, Ohio) or coal tar (Portland, Oregon) linings (Tables 7 and 16). However, Sorrell also reproduces data by Basu and Saxena which show 11 of 13 samples at or above 2.8 ng/l (Tables 6 and 13).

Comments on some items not listed in the Index follow:

1. Leininger's September 5 transmittal included three pages from an MDH report that derives a 10^{-5} risk level concentration of 11 ug/l for quinoline based on animal testing reported by Shinohara, et al. (1977). The 10^{-6} risk level of 1,100 ng/l (1.1 ug/l) given in the ROD apparently comes from dividing this value by 10. The source of these three pages is given as "Health Risk Assessment and Environmental Effects of Compounds Contaminating St. Louis Park Groundwater: Selected Two- and Three-Ring Heterocycles and Indene", by Steve Mabley, School of Public Health, University of Minnesota, submitted to MDH, June, 1983. We have not seen the complete report, nor do we know of Steve Mabley

or his credentials. It is important that we examine the complete report, however, in order to understand Mabley's approach fully and to check whether the 280 ng/l criterion is appropriate for noncarcinogenic heterocyclic compounds.

2. It seems odd that the earliest reports of PAC and GAC testing at SLP15 are not included in the Record, viz., Serco's January 1980 report and Hickok's April 1981 report. Both of these studies were conducted on behalf of SLP and both showed that both PAC and GAC are effective at removing PAH well before CH2M Hill's work. Nonetheless, CH2M Hill never gave much apparent consideration to PAC in spite of these earlier results.